

- 1 115. A method of making a plurality of battery plates, the method comprising:
2 forming a strip of interconnected battery grids from a grid material, each
3 interconnected battery grid including a grid network bordered by at least one frame
4 element, one of the frame elements having a current collector lug, the grid network
5 comprising a plurality of spaced apart grid wire elements, each grid wire element
6 having opposed ends, each opposed end being joined to one of a plurality of nodes to
7 define a plurality of open spaces in the grid network;
8 deforming at least a portion of the grid wire elements at a position
9 intermediate the opposed ends of the grid wire element such that a first transverse cross-
10 section taken at the position intermediate the opposed ends of the grid wire element
11 differs from a second transverse cross-section taken at one of the opposed ends of the
12 opposed ends of the grid wire element;
13 applying battery paste to the strip;
14 cutting the strip to form a plurality of battery plates;
15 wherein the grid network and each of the frames define opposed planar
16 surfaces, and each first transverse cross-section does not extend above or below the
17 planar surfaces.
- 1 116. The method of claim 1 wherein the step of deforming at least a portion of
2 the grid wire elements comprises: stamping the grid wire element at the position
3 intermediate the opposed ends of the grid wire element.
- 1 117. The method of claim 2 wherein the first transverse cross-section
2 substantially has a shape selected from group consisting of diamond, oval, rhomboid,
3 hexagon, and octagon.
- 1 118. The method of claim 1 wherein the step of forming a strip of
2 interconnected battery grids from a grid material comprises: feeding a continuous strip
3 of the grid material along a linear path aligned with the longitudinal direction of the
4 strip; and
5 punching grid material out of the strip to form the strip of interconnected
6 battery grids.

1 119. The method of claim 4 wherein the continuous strip of the grid material
2 is formed by a continuous casting process.

1 120. The method of claim 4 wherein the continuous strip of the grid material
2 is formed by a rolling process.

1 121. The method of claim 1 wherein the step of forming a strip of
2 interconnected battery grids from a grid material comprises:

3 feeding a continuous strip of the grid material along a linear path aligned
4 with the longitudinal direction of the strip;

5 piercing apertures in the strip of grid material; and

6 laterally expanding the strip of grid material to form the strip of
7 interconnected battery grids.

1 122. The method of claim 1 wherein the step of forming a strip of
2 interconnected battery grids from a grid material comprises:

3 melting the grid material;

4 continuously casting the grid material to form a continuous web; and

5 rolling the web to form the strip of interconnected battery grids.

1 123. The method of claim 1 wherein the step of forming a strip of
2 interconnected battery grids from a grid material comprises:

3 melting the grid material; and

4 continuously casting the grid material to form the strip of interconnected
5 battery grids.

1 124. The method of claim 1 further comprising the step of deforming at least a
2 portion of the nodes before applying battery paste to the strip.

1 125. A method of making a plurality of battery grids, the method comprising:
2 forming a strip of interconnected battery grids from a grid material, each
3 interconnected battery grid including a grid network bordered by at least one frame
4 element, one of the frame elements having a current collector lug, the grid network
5 comprising a plurality of spaced apart grid wire elements, each grid wire element

6 having opposed ends, each opposed end being joined to one of a plurality of nodes to
7 define a plurality of open spaces in the grid network;

8 deforming at least a portion of the grid wire elements at a position
9 intermediate the opposed ends of the grid wire element such that a first transverse cross-
10 section taken at the position intermediate the opposed ends of the grid wire element
11 differs from a second transverse cross-section taken at one of the opposed ends of the
12 grid wire element; and

13 cutting the strip to form a plurality of battery grids,

14 wherein the grid network and each of the frames define opposed planar
15 surfaces, and each first transverse cross-section does not extend above or below the
16 planar surfaces.

1 126. The method of claim 11 wherein the step of deforming at least a portion
2 of the grid wire elements comprises stamping the grid wire element at the position
3 intermediate the opposed ends of the grid wire element.